

Bit by Bit

A series of trends, tools, and initiatives are aimed at improving electronic resource management, writes **Peter Webster**

Electronic resources are more prominent than ever in library collections, yet they resist easy management. Recent Association of Research Libraries (ARL) figures show that member libraries spend over 25% of collection budgets on electronic materials, up from 3.5% in 1993. However, it is often difficult to track holdings and administrative data, maintain statistics on product usage, and evaluate cost benefit for these digital materials.

A range of tools and cooperative efforts are emerging to improve the management and evaluation of electronic resources. Initiatives are underway to standardize and automate the harvesting of usage statistics and e-journal title and holdings information. New electronic resource management (ERM) software centralizes data for managing e-content. Soon, we'll have an e-content environment where librarians can easily compare apples with apples to inform decisions on purchasing and marketing these premium services.

E-content standards

Standards are critical to merging and analyzing e-content data from disparate sources. Electronic publishers, systems vendors, and librarians are working together on e-content initiatives that establish needed standards:

The COUNTER Code of Practice for Journals and Databases, released in January 2003, sets a uniform standard for e-journal database usage statistics. Most e-journal vendors now supply COUNTER-compliant statistics, to some extent. The COUNTER group is expanding its work to include XML formatting and a Code of Practice for Book and Reference Works.

In November 2005, a cross-industry group of universities and library product vendors announced the NISO Standardized Usage Statistics Harvesting Initiative (SUSHI) to make collecting COUNTER statistics easier. SUSHI's goal is to develop "a standard model for machine to machine automation of statistics harvesting."

The ONIX for Serials project is a joint effort of NISO and the international e-commerce group EDItEUR

and comprises protocols for moving electronic serials information, such as subscriptions, between online systems. It builds on the ONIX protocols for interchange of book information used by publishers and online booksellers.

In August 2004, the Digital Library Federation's (DLF) Electronic Resource Management Initiative finalized a specification for administrative and license information and internal processes for e-content management. This specification has been widely adopted by information software vendors.

The ARL Statistics and Measurement Program created its E-Metrics project to track the use and value of electronic resources. E-Metrics is quantitative, but libraries also need qualitative information, such as e-content user preferences and satisfaction. ARL's DigiQUAL is a survey instrument modeled on its LibQUAL survey that tracks outcomes and is scheduled for release in 2006.

A handle on ERM

As standards emerge in e-content statistics, we can choose from the variety of ERM software that has begun to incorporate those standards. ERM applications are promising, if fledgling,

products. Innovative Interfaces released its ERM product in March 2004. Ex Libris's Verde only dates back to August 2005, and Endeavor's Meridian emerged just a few months before that. Serials Solutions launched its ERM product in September 2005.

Current ERM products store and manage information about licensing, costs, and administration of electronic content; they merge usage data and title and holdings information from local library systems, database and e-journal web interfaces, and popular federated search and link resolver software. Integrated library system (ILS) vendors or electronic services companies like Serials Solutions or TDNet offer ILS-based and standalone modules for managing electronic content.

Several ERM products, including Innovative and Serials Solutions, even produce a web page of a library's available databases, plus A-Z lists of individual e-journals. Diane Grover, electronic resources coordinator with the University of Washington (UW) Libraries, worked with Innovative Interfaces to develop its ERM product. Enthusiastic about Innovative's ERM capabilities, she explains that bringing together information about database trials, problems being tracked, license terms and restrictions, and pricing information lessens confusion and saves staff time. Kimberly Parker, head of electronic collections for Yale University, is equally positive about Ex Libris's Verde ERM system, remarking, "Yale is looking to the new system to help consolidate the multiple flows of information being maintained in separate systems."

More development needed

Parker points out that Verde is configurable but complex. Converting existing information and workflows into Verde represents a yearlong implementation process for Yale, which keeps journal title holdings locally and also receives some title and holdings data from Serials Solutions. Parker and her team must populate Verde with information from both sources, plus their SFX link resolver. Like Yale, Grover's library is transferring title and holdings from Serials Solutions into its Innovative ERM system. Libraries often have to load ERMs with title and holdings data from an ILS, a link resolver, or locally produced or vendor-supplied title lists. Some ERMs support the ONIX for Serials automated transfer protocol, but testing is still in early stages for database vendors.

LINK LIST

COUNTER (Counting Online Usage of Networked Electronic Resources)

www.projectcounter.org

CrossRef www.crossref.org

Digital Library Federation, Electronic Resource Management Initiative.

www.diglib.org/standards/dlf-erm02.htm

Endeavor Meridian

www.endinfosys.com/meridian

Ex Libris Verde

www.exlibris-usa.com/verde.htm

Innovative Interfaces ERM

www.iii.com/mill/digital.shtml#erm

Onix for Serials project

www.editeur.org/onixserials.html

Serials Solutions ERM

www.serialssolutions.com/promotion/ERMS

Standardized Usage Statistics

Harvesting Initiative (SUSHI)

www.library.cornell.edu/cts/elicensestudy/ermi2/sushi

TDNet www.tdnet.com

For example, EBSCO and Ex Libris announced their first tests of ONIX for Serials in November 2005.

UW's Grover is satisfied with Innovative's e-content usage statistics capabilities but feels more development is needed, with cost per use statistics still a gap. Grover likes the tools for loading external data, but library staff still collect usage statistics from individual database products and import these into Innovative's ERM system. Grover reports that Innovative recently began beta-testing automated transfer of usage statistics from database vendors into its ERM.

"Cost per use is on the radar for Verde," says Ted Koppel, project manager for Ex Libris's Verde. During its Verde ERM implementation, Parker's team at Yale will continue collecting usage statistics from individual e-journal databases, leaving Verde's usage tracking until they have configured more basic areas like titles and holdings and Ex Libris has moved beyond beta-testing SUSHI standards for transferring usage data.

Not every ERM tool comes from an ILS vendor. Terry Nikkel, head of library systems for Dalhousie University, says that his libraries use Serials Solutions' title and holdings information. Dalhousie has used Serials Solutions AMS and Article Linker for over a year and is now implementing Serials Solutions Central Search federated search interface. Nikkel reports that title overlap analysis is easy with Serials Solutions' ERM tools and one of their

most useful features. The wide selection of usage reports from the AMS and Central Search user interfaces also saves time. So far, Dalhousie doesn't need additional ERM, although Nikkel expects this to change in the future.

The future of e-content stats

NISO and DLF are developing standards for use in e-content licenses or "digital rights expression." This will enable ERM systems to search and retrieve license details. The CrossRef e-journal registry fits neatly with the premise of standardized and centralized e-content data that can be automatically harvested by ERM systems. There is similar potential for centralized repositories of other serials-related information, including e-journal title and holdings information and library IP ranges for validating database use.

Although the COUNTER Code of Practice has been widely accepted, many e-content vendors are not yet fully COUNTER-compliant. Smaller e-journal publishers often provide little or no usage data. Ebooks have no standards for tracking usage, though COUNTER is working on a code of practice for them.

Libraries also need information about e-content that falls outside of current standards efforts. Many librarians want to track usage from off-campus, campus portals, or within courseware applications like Blackboard. Statistics broken down by IP number identify geographic use in faculty offices, student residences, or other locations. Usage information on database features, such as alerts or stored searches, help librarians track self-service levels and the popularity of personalized functions. Few database vendors provide such data, and COUNTER Code of Practice does not include it.

Still, trends are clear. Librarians can look forward to a simpler, integrated process of tracking, managing, and evaluating electronic collections. Future developments include widespread adoption of common methods for harvesting statistics, transporting e-journal title and holdings information among systems, and expressing licensed use rights, plus additions to standardized statistics. The success of these efforts depends on how well e-content vendors comply with data exchange standards and how well librarians continue to express e-content management needs through these standards. ■

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